

Kenneth James Pettipiece and William Bradshaw  
Amos  
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PATENT

have amended it accordingly. Additionally, it is respectfully submitted that one skilled in the art would not arrive at the present invention by combining the teachings of McNamara et al., Cabib et al. and Hock since none of the references disclose a spectral imaging system that includes a beamsplitter that reflects a first preferred polarization and transmits a second preferred polarization as recited in claim 12, both originally and as now amended.

Accordingly, it is respectfully submitted that claim 12 is allowable. Claims 13 and 23-26 depend on claim 12 and therefore, they are allowable for at least the reasons claim 12 is allowable. These claims further define and augment the features of Applicants' invention.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at .

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

12. (Twice Amended) A spectral imaging system configured to provide an image of a sample, comprising:

a source for illuminating said sample with radiation within a first band of wavelengths, wherein said first band of wavelengths excites regions within said sample causing said regions to emit radiation within a second band of wavelengths;

an interferometer for spectrally resolving said wavelengths within said second band of wavelengths, wherein said interferometer creates an interferogram of said sample that is superimposed on an image of said sample transmitted by said interferometer, wherein said interferometer includes:

at least two turning mirrors; and

one polarizing beam splitter,

wherein said polarizing beam splitter substantially [preferentially] reflects a first polarization and [preferentially] substantially transmits a second polarization;

a detector array, wherein said sample and said interferogram of said sample are imaged on said detector array, wherein said detector array outputs a plurality of signals corresponding to an intensity at each pixel of said array; and

a processor coupled to said detector array and coupled to a monitor, said processor displaying an image of said sample on said monitor.